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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,109	07/11/2003	Yves Le Brech	03-016-US	4094
23726	7590	12/16/2005	EXAMINER	
BUCHANAN INGERSOLL P.C. C/O MARC J. FARREL, ESQ. ONE SOUTH MARKET SQUARE 213 MARKET STREET, 3RD FLOOR Harrisburg, PA 17101-2121			SALVATORE, LYNDA	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,109

Applicant(s)

LE BRECH ET AL.

Examiner

Lynda M. Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 and 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-7 and 11 in the reply filed on 9/09/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

An error on the part of the Examiner was noticed with respect to the grouping of claims set forth in the requirement for restriction mailed 3/9/05. Specifically, the Examiner did not include in the written requirement for restriction the claims directed to the apparatus, claims 12-14. As such, the following new groups of claims are set forth herein below.

- I. Claims 1-7 and 11 drawn to a filter material classified in class 442, subclass 272.
 - II. Claims 8-10 drawn to a process for producing a filter material classified in class, 210 subclass various 505+.
 - III. Claims 12-14 drawn to an apparatus for producing a filter material classified in class, 28 subclass 100+.
2. The inventions are distinct, each from the other because:
- Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process

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(MPEP § 806.05(f)). In the instant case, the filter material can alternatively be made using spun-bonding, carding, water jet entangling or melt-blown processes.

Inventions of Group III and Group I are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case, the heatsealable ply can be formed with conventional film extrusion apparatuses and the non-heatsealable ply can be formed with conventional spun-bonding, air, carding, melt-blown, coform or water jet entangling apparatuses. The two layers can be joined via conventional co-extrusion type machines or may be joined using an adhesive, which can be applied by conventional coating, dipping, or spraying apparatuses.

Inventions of Group II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the filter can be made with conventional spun-bonding, air, carding, melt-blown, coform or water jet entangling apparatuses.

Since Applicant elected to prosecute Group I, claims 1-7 and 11, claims 8-10 and 12-14 are withdrawn from further consideration as non-elected.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakagawa et al., US 2003/0019598 A1.

The published patent application issued to Nakagawa et al., teach a filter laminate comprising a heat sealing layer comprising a mixture of synthetic pulp and synthetic short fiber. Said heat sealing layer is further joined to a substrate layer comprising natural fiber (abstract and section 0080-0081). Nakagawa et al., teach a synthetic pulp short fiber formed from a polyolefin based mixture of (a) an ethylene- α,β -unsaturated carboxylic acid copolymer which can formed into a pulp like material having good heat-sealability and hot tack and (b) polyethylene resin (Sections 0050-0066). Suitable synthetic fibers include polyolefin fibers such as those derived from polyethylene or polypropylene as well as polyester and polyamide (Section 0075). With specific regard to the recited adhesion promoter limitation, it is the position of the Examiner that the synthetic pulp resin composition comprising a mixture of (a) and (b) meets said limitation. Specifically, the Examiner considers the teaching of synthetic pulp fibers formed from a resin composition having good heat sealability and hot tack sufficient to provide the necessary

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adhesion promoting properties to the claimed heat sealable ply comprising synthetic fibers. With regard to the intended use recited by Applicant in claim 11, Nakagawa et al., teach that the laminate is suitable to form tea bags (Abstract).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al., US 2003/0019598 A1 as applied to claim 1 above, and further in view of Lin, US 2003/0207639 A1.

With specific regard to claim 2, Nakagawa et al., fail to teach the claimed polyolefin grafted with maleic anhydride groups adhesion promoter, however, the published patent application issued to Lin teaches a non-woven web with improved adhesion (Title). Lin teaches a non-woven web formed with an improved binder fiber comprising a tackifier and a grafted polyolefin adhesion promoter (abstract). Specifically, the binder fiber is a low melt or bi-component polymer fiber formed from various polyolefins such as polyethylene or polypropylene (Section 0020-0023). Suitable adhesion promoters include the claimed polyolefin grafted with maleic anhydride groups (Section 0025).

With respect to claim 3, Lin teaches employing from about 1-20 percent by weight of the adhesion promoter (e.g., polyolefin grafted with maleic anhydride groups) based on the weight of the low melt base polyolefin (Section 0025). Specifically, the

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amount of grafted polyolefin adhesion promoter is such that the weight of incorporated maleic anhydride ranges from .05-2 percent by weight (Section 0025).

Said web is suitable for use in air and liquid filters (Section 0030).

Therefore, motivated by the desire to provide a heat-sealing layer with improved adhesion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the heat sealing layer in the filter laminate of Nakagawa et al., with the binder fibers of Lin.

With regard to claim 4, recall, Nakagawa et al., taught the use of polyester, polypropylene or polyethylene synthetic fibers in addition to the synthetic pulp fibers (Nakagawa et al., Section 0075).

With regard to claim 5, Nakagawa et al., teach a substrate comprising natural fibers such as abaca pulp (Section 0081). Said substrate layer is formed as a wet web having air permeability and strength (Section 0081 and Section 0084). As such, it is expected that the substrate layer of Nakagawa et al., would have the desired wet strength.

With regard to claim 6, Nakagawa et al., teach that the substrate layer has a basis weight ranging from 10-50 g/m² (Section 0081). With regard to the claimed air permeability properties, Nakagawa et al., fails to teach the specific air permeability properties of the substrate, but does suggest that the substrate layer is air permeable based on the selection of natural fibers (e.g., abaca pulp). As such, it is the position of the Examiner that the claimed air permeability properties would inherently be present in the air permeable substrate layer taught by Nakagawa et al. Applicant is invited to evidence otherwise.

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With regard to claim 7, Nakagawa et al., teach a heat sealable layer having a basis weight ranging from 1-20 g/m² (Section 0077).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 4, 2005

ls

A handwritten signature in black ink, appearing to read "Lynda M. Salvatore", is written over the typed name "ls". The signature is fluid and cursive.